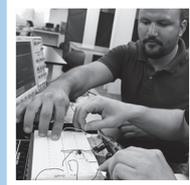
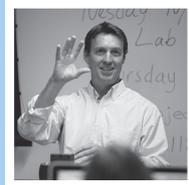


Work place Core Skills Unit

PROBLEM SOLVING SCQF level 4 Assessment Support Pack



What are Core Skills?

Core Skills are skills and abilities which everyone needs in their work. This is true for every job in every workplace.

The Core Skills are:

- Communication
- Numeracy
- Information and Communication Technology
- Problem Solving
- Working with Others

Employers look for Core Skills when they are appointing new staff. They also expect their existing staff to have these skills.

Core Skills are important because they help you work effectively in your present job and also prepare you for jobs which you will do in future. Developing your Core Skills helps you deal with today's rapidly changing world and improve your career prospects.

Part 1: Information for assessors

What is involved?

The Unit is designed for the workplace and the content should involve tasks and skills that are suited to the requirements of the candidate's working environment.

The focus of the Unit is on transferable problem-solving skills:

- ◆ critical thinking (investigating)
- ◆ planning and organising (planning and solving)
- ◆ reviewing and evaluating (checking and evaluating)

These skills should be useful to candidates in their current and future jobs, as well as in their social and personal lives.

The Unit is designed for those who have some skill and experience in using problem-solving skills within the workplace, eg at assistant worker level. The Unit might be suitable for candidates who are currently working towards an SVQ/NVQ at level 2 or level 3.

Problem Solving tasks can be combined with the other Core Skills Units: Communication, Numeracy, Information and Communication Technology, and Working with Others. If you adopt this approach, records must be kept for each Unit.

Guidance on the Unit

Candidates at SCQF level 4 are required to develop an approach to deal with a straightforward problem in a workplace context that is familiar to them. They may need some support to identify a suitable problem that meets the level of the Unit, problem-solving strategies, and suitable evaluation criteria either from you, or from a supervisor or other workplace mentor.

The 'What do I need to do' section of the Unit lists the knowledge, understanding, and competence that candidates must have and what they need to do to prove this. You may want to discuss these with the candidates. The following notes give detailed pointers on the things candidates need to know and be able to do.

What candidates need to do

Investigating

Candidates will apply critical thinking as the first stage of the problem-solving process. They will investigate and analyse a straightforward problem to identify the main factors that affect the problem. These factors will include identifying the causes of the problem, looking at why the problem has arisen, and identifying who is involved. The candidates may ask for information or help from others, eg you, colleagues, or customers. They will then use their findings to devise an approach to deal with the situation. There may be several possible approaches, therefore candidates need to justify their chosen approach. Approaches should be obvious, straightforward, and may include making a simple change to a known process.

Candidates will need to know about the systems and procedures in their workplace (including health and safety) and the personnel structure of the organisation. Candidates will need to know which resources are available to them so they can carry out their plan. They should be aware of time constraints and any other limitations.

Planning and solving

Candidates will use the results of their critical thinking to work out a sequential, linear action plan to deal with the problem. The action plan will clearly identify what tasks need to be done, who needs to do them, the order in which tasks need to be carried out, and if permission is required for any of the tasks included in the action plan. Candidates will identify any limitations that may affect their plan, eg financial constraints or available personnel.

They will choose and obtain any resources needed to carry out the action plan and specify timescales for completion of each task.

Once the action plan is complete the candidates will carry it out and either undertake tasks themselves or oversee the completion of tasks where they have been allocated to others.

Checking and evaluating

Once all the tasks specified in the action plan have been completed, the candidates will evaluate how effective each stage of their problem-solving approach was. They will do this by deciding on criteria then apply the selected criteria to each stage of the process, ie analysing the situation and planning and organising the task. This will enable them to identify the strengths and weaknesses of their problem-solving approach.

Having carried out this evaluation, the candidates will be able to suggest improvements and alternative ways of dealing with similar situations in the future.

How do candidates show they have achieved the Unit?

The Unit requires the candidates to provide evidence for each of the three tasks.

Task 1: Investigating

Investigate reasons why a straightforward problem, situation, or issue related to their work has arisen. Devise a course of action to deal with it.

Task 2: Planning and solving

Plan, organise, and carry out the course of action.

Task 3: Checking and evaluating

Devise criteria to check how well their approach to the problem-solving activity worked in practice. Draw conclusions for improvements and alternative ways of dealing with similar situations in the future.

Candidates must use only one problem situation to prove that they can do all the tasks in this Unit. They should not gather evidence from different problem situations for different tasks.

Assessment requirements

The problem, situation, or issue should be in a context that is familiar to the candidate's working environment. There should be a limited number of variables and the relationships between these variables will be clear.

The action plan should include a limited number of sequential steps/variables, where relationships are clear. The plan will be linear.

Resources should be familiar to the candidates. These might include sources of information, set procedures, money, people, equipment, accommodation, and physical resources.

Once the action plan is complete the candidates will carry it out and either undertake tasks themselves or oversee the completion of tasks where they have been allocated to others.

Candidates will decide on a small number of criteria for reviewing and evaluating the strengths and weaknesses of their approach to problem solving. Examples of these criteria include was the cause of the problem correctly identified, was the course of action taken the most appropriate, were the allotted timescales appropriate to the tasks, where the resources suitable for the task, was the plan completed within budget, and was the problem resolved. Candidates will apply the selected criteria to all the activities in the action plan. The candidates will consider the evidence of the evaluation and as a result of this will suggest modifications or alternatives for improving future problem-solving activities.

Gathering evidence

It may be appropriate for you to gather written evidence produced by the candidate while carrying out the practical tasks. However, written evidence is not essential and is inappropriate if it disadvantages the candidate.

You may wish instead to observe the candidate carrying out a task and use oral questioning. This requires you to create and complete a record of questions asked and candidate responses.

From the candidate's point of view, it is useful to have the means of keeping all the work of this unit together. You can help here by creating and providing a workbook that includes all the evidence-gathering items. An alternative would be to provide worksheets that can be made into a portfolio or e-portfolio.

If you have chosen to integrate the problem-solving work with other Units being undertaken by the candidate, it may be possible to assess the problem-solving process as part of a larger single activity. In this case you must keep separate records for this Unit.

You should try to identify naturally occurring opportunities for assessment where possible. Some of the exemplars in this pack could be used or contextualised for this purpose.

The assessment is likely to involve one or more of the following:

- ◆ observation
- ◆ recording
- ◆ oral questioning

When assessing by observation, you must keep a detailed checklist. Similarly, if you use oral questioning, you must keep a record of both the questions and the candidate responses. All evidence, whether produced by the candidate or a record made by yourself, must be retained, signed, and dated by you.

Planning

You should work out where opportunities for meeting the Unit standards are likely to arise. Where possible, these should be built into the assessment process. You should explain and discuss the assessment process with the candidates so they are clear about what is expected of them.

Part 2: Exemplar assessment tasks

Note for assessors

You can use the exemplar assessments given in this section in several ways:

- ◆ to illustrate to candidates the type of materials that could be used to generate evidence
- ◆ to help identify the type and amount of evidence that candidates should have gathered in their portfolio
- ◆ to help identify the level of complexity in evidence required for the Core Skill at this level
- ◆ to help you to identify/create an assessment task related to the candidate's own work environment
- ◆ as an off-the-shelf assessment, although every effort should be made to source/provide candidates with assessment materials that relate to their specific area of work

Exemplar assessment

Your place of work will have a health and safety inspection in four weeks' time. Your supervisor has noticed that although the workplace is 'paper free' it looks cluttered and untidy. You are asked to look at how this situation could be improved. You should:

- 1 Look at the workplace and decide on the factors that are causing the problem with untidiness and clutter.
- 2 Decide on an approach to improve the situation asking for help and information if appropriate.
- 3 Draw up an action plan. You will need to decide on the necessary tasks and who will do them; identify any limitations such as time or money; check if you need permission for any of the tasks and arrange this.
- 4 Choose and obtain the resources you will need, eg equipment, money, information, or input from other people.
- 5 When your plan is complete put it into practice.
- 6 Choose criteria to decide how effective your approach to improving the situation has been.
- 7 Based on your evaluation of your problem-solving approach, suggest improvements for any future problem-solving activities.

Marking notes

Task 1: Investigating

At this level candidates should be able to identify a limited number of variables, at least four, with clear relationships between them.

Examples of variables relating to the exemplar assessment might include:

- ◆ lack of secure storage in the workplace for personal belongings
- ◆ shortage of storage for outdoor wear
- ◆ lack of convenient storage for paper files since implementation of 'paperless' office
- ◆ handbags, jackets, sports bags, and shopping creating clutter
- ◆ boxes of paper files left under desks
- ◆ colleagues unclear about archiving procedures

Clear relationships between these variables are that personal belongings and paper files have been left lying around due to insufficient storage. Lack of awareness of procedures relating to filing/disposal of old files contributes to the problem.

Following from this the candidates may suggest approaches that might include:

- ◆ buying more storage cupboards and filing cabinets if required
- ◆ auditing present storage and buying more if required
- ◆ clearing out and shredding old files
- ◆ archiving little-used items elsewhere
- ◆ investigating what items are lying around, clarifying archiving procedures, auditing storage, and buying any further appropriate storage

The best approach is clearly the final approach. Candidates may ask for information or help to enable them to proceed. This might include information about the budget available, preferred/approved suppliers of office furniture, and information about workplace filing and archiving procedures.

Task 2: Planning and solving

Examples of tasks in the linear action plan relating to the exemplar assessment might include:

- ◆ checking which items make the workplace untidy
- ◆ identifying if these items are personal or work-related
- ◆ checking filing and archiving procedures
- ◆ auditing available storage
- ◆ identifying additional storage requirements
- ◆ ordering new storage
- ◆ arranging installation of new storage
- ◆ review new arrangements with supervisor

Resources might include a PC, workplace plans and procedures, organisation charts, and information from office suppliers. The timescale for completion should be before the health and safety inspection in four weeks' time.

People may include the candidate's line manager, health and safety personnel, office colleagues, and staff from suppliers. Tasks should be planned to be carried out in a logical order, with fact finding preceding ordering new furniture. The final stage of the plan would involve checking to see that the problem has been solved.

Task 3: Checking and evaluating

Candidates need to identify criteria to identify the strengths and weaknesses of their problem-solving approach. Examples from the exemplar assessment might include:

- ◆ Was the main reason for the problem correctly identified?
- ◆ Keeping to an agreed timescale — did any of the tasks take too long?
- ◆ Having appropriate resources — could you have used anything else?
- ◆ Did everyone involved work effectively — were the tasks appropriately allocated to people; did people provide support when it was needed; did people provide appropriate information?
- ◆ Was the solution overall a good one in that the workplace could be kept tidy?

Where weaknesses are identified the candidates should suggest alternative strategies that could be used in future problem solving. An example of this would be if a candidate had not carried out an in-depth analysis of the issues causing the problem during the implementation of the action plan; the suggestion for the future would relate to more careful planning. In the exemplar the assumption might have been made that the lack of storage was only for office-related items and the need for storage for personal items might only emerge at a later stage.

Part 3: Exemplar recording documentation

This section gives some examples of forms that could be used by the candidates and/or assessor to gather evidence and record assessment decisions.

You are encouraged to adapt these materials to suit you and your candidate's preferred approach, ie boxes can be made bigger, format can be changed to a non-table format, font size etc.

Assessment plan

You should work out where naturally occurring opportunities for meeting the standards are likely to arise and, where possible, build them into the assessment process.

You should explain and discuss the assessment process with candidates so they are clear about what is expected of them.

Record sheets

Record sheets are provided for each of the three tasks:

Task 1: Investigating

Task 2: Planning and solving

Task 3: Checking and evaluating

The candidates can provide written answers on these forms. Alternatively, if you use oral questioning, you may use them to write down the candidates' answers.

Assessment checklists

Candidates could use the assessment checklists as a means of cross-referencing evidence in their portfolio to the Unit.

Assessors could use the assessment checklists to record assessment decisions and any relevant comments.

Summary checklist

The summary checklist could be used to record the assessment decisions from the assessment checklists on a single form.

Assessment plan

Problem Solving (SCQF level 4)

Candidate: _____

Task to be assessed: _____

Proposed date of assessment: _____

Proposed method of assessment	Tick	Notes
Assignment or project		
Observed performance		
Witness testimony		
Written questions		
Oral questioning		
Product evaluation, eg written document		
Previous evidence		
Other evidence		

Details agreed and signed by:

Assessor _____

Candidate _____

Line manager (if required) _____

Date _____

Record sheet

Problem Solving (SCQF level 4)

Task 1: Investigating

Candidate name: _____

Date: _____

Task 1: Investigating why a problem, situation, or issue has arisen

What is the problem, situation, or issue?

What are the main factors affecting the problem? For example, what are the causes of the problem, why has the problem arisen, and who is involved?

What approaches could you take to deal with the problem?

Which approach do you think is the best approach to take and why?

Who will you need to help you with this?

Assessor's comments

Record sheet

Problem Solving (SCQF level 4)

Task 2: Planning and solving

Candidate name: _____

Date: _____

Task 2: Work out an action plan to deal with the problem and carry it out

Use the columns below to help you make a plan to deal with the problem. You should show what tasks need to be done, the order in which they should be carried out in, and who needs to carry out each task; this could be you or someone else. You should identify any limitations to your plan, such as time or cost, and also any resources you will need.

When your plan is complete, check with your assessor before putting the plan into action. Keep a record of what you do and when you do it as you complete the different tasks.

What needs to be done and in what order?	Who will do the tasks?	What resources are needed?	Any limitations, such as time or cost	Task completed and time taken

Assessor's comments

Record sheet

Problem Solving (SCQF level 4)

Task 3: Checking and
evaluating

Candidate name: _____

Date: _____

Task 3: Decide how well your approach to the problem-solving activity worked in practice

Now you have completed your action plan, decide on criteria to assist you to identify the strengths and weaknesses of each part of your problem-solving approach. Your criteria might include was the cause of the problem correctly identified, was the course of action taken the most appropriate, were the allotted timescales appropriate to the tasks, were the resources suitable for the task, was the plan completed within budget, and was the problem resolved. Use the columns below to keep a record of your review and evaluation.

Evaluation criteria	Stages of the plan	Strengths	Weaknesses

Record sheet

Problem Solving (SCQF level 4)

Task 3: Checking and
evaluating

Candidate name: _____

Date: _____

Task 3: continued

Look at what you have recorded in your review and evaluation, and describe how effective each stage of your problem-solving strategy was.

Based on the findings from your review and evaluation, describe anything you would do differently when dealing with similar situations in future.

Assessor's comments

Assessment checklist

Problem Solving (SCQF level 4)

Task 1: Investigating

Candidate name: _____

Date: _____

Task 1: Investigate reasons why a straightforward problem related to your work has arisen.

	Evidence	Assessor initials and date	Comments
Recognised the main reasons for the problem, situation, or issue			
Decided on an approach to deal the problem, situation, or issue			

Assessment checklist

Problem Solving (SCQF level 4)

Task 2: Planning and solving

Candidate name: _____

Date: _____

Task 2: Plan, organise, and carry out a straightforward activity to deal with the problem			
	Evidence	Assessor initials and date	Comments
Worked out an action plan to deal with the problem, situation, or issue			
Identified and obtained resources needed to carry out the action plan			
Carried out the action plan			

Assessment checklist

Problem Solving (SCQF level 4)

Task 3: Checking and
evaluating

Candidate name: _____

Date: _____

Task 3: Check how well your approach to the problem-solving activity worked in practice

	Evidence	Assessor initials and date	Comments
Devised criteria to identify the strengths and weaknesses of the problem-solving approach			
Considered the results of the evaluation and suggested ways of approaching similar problems in the future			

Summary checklist

Problem Solving (SCQF level 4)

Candidate name: _____

Candidate number: _____

Centre: _____

Task	Date achieved
1 Critical thinking (investigating)	
2 Planning and organising (planning and solving)	
3 Reviewing and evaluating (checking and evaluating)	
Assessor's signature: _____	Date: _____

ADMINISTRATION INFORMATION

Credit Value

6 SCQF credit points at SCQF level 4



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